



AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraph beginning at page 2, line 15, with the following amended paragraph:

According to the invention, these objects are achieved by a device of the kind mentioned by way of introduction, which has been given the characteristics of claim 4 disclosed herein. Preferred embodiments of the inventive device are ~~defined in dependent claims 2-19~~ also disclosed.

Please replace the paragraph beginning at page 2, line 20, with the following amended paragraph:

The above-mentioned objects are also achieved by a method ~~as defined in claim 20, preferred variants thereof being defined in claims 21-35~~ disclosed herein.

Please replace the paragraph beginning at page 11, line 12, with the following amended paragraph:

Gas withdrawn through the outlets 20 in the bottom portion 19 of the sterilization zone 3 is passed through the catalyst unit 26 36 for removing hydrogen peroxide from the gas before being evacuated through the evacuation system of the device 1.

Please replace the paragraph beginning at page 11, line 36, with the following amended paragraph:

The package 8, now sterilized and essentially free from residual hydrogen peroxide, is passed into the filling zone 5 where it is filled with a sterile content, e.g. milk, juice or tomato paste. In order to ensure an air flow essentially from top to bottom, thus minimizing the risk of recontamination of the package 8, sterile air is introduced via the nozzles 26 in the top portion 27 of the filling zone 5. A positive pressure is maintained in the filling zone 5, such that air flow is from the filling zone 5 outwards and not the other way round.

Please replace the paragraph beginning at page 12, line 15, with the following amended paragraph:

When a production run is finished or when a new run is to begin, the device itself needs to be sterilized. Hot sterile air is then introduced via the nozzles 13 in the heating zone 2 and the inside of the device 1 is heated to approximately 35 °C. When the interior has reached the appropriate temperature, gaseous hydrogen peroxide is introduced in the entire device via the nozzles 17 in the sterilization zone 3. The flow pattern will be different during machine sterilization, i.e. sterilization of the interior of the device 1, as compared to during package sterilization, since the entire interior is to be heated and sterilized. As with package sterilization, sterilizing gas is withdrawn via the catalyst unit ~~26~~ 36 for destruction of the hydrogen peroxide.

Please replace the paragraph beginning at page 12, line 30, with the following amended paragraph:

The sterilization process in the device of the invention is controlled by means of three control loops. In the first control loop, an ambient temperature sensor ~~27~~ 37

measures the temperature outside the device 1 and a relative humidity sensor 28 measures the relative humidity outside the device. A concentration meter 29 measures the hydrogen peroxide concentration in the sterilization zone 3. A first control unit 30 receives signals from the ambient temperature sensor ~~27~~ 37, the relative humidity sensor 28 and the concentration meter 29 and regulates the amount of hydrogen peroxide added in production of the sterilizing gas. During machine sterilization, the data from the temperature sensor ~~27~~ 37, relative humidity sensor 28 and the concentration meter 29 are used for regulating the amount of hydrogen peroxide added to the air stream in the gas production unit 25. In this manner, optimal conditions may be achieved for machine sterilization. During package sterilization, when the hydrogen peroxide concentration of the sterilizing gas is normally significantly higher than during machine sterilization, the relative humidity outside the device 1 is not as important, and therefore only the ambient temperature sensor ~~27~~ 37 and the concentration meter 29 are used for regulating the hydrogen peroxide amount added in the gas production unit 25. In this manner, the killing efficiency of the gas may be controlled for purposes of package sterilization.

Please replace the paragraph beginning at page 13, line 20, with the following amended paragraph:

In the second control loop, a the package start heating temperature sensor 31 is used for measuring the temperature of the packages 8 before entering the device (i.e., start) and a package heating temperature sensor 32 is used for measuring the temperature of the packages 8 just before they leave the heating zone 2. Signals from these two temperature sensors 31, 32 are sent to a second control unit 33

which regulates the temperature of the hot air introduced in the heating zone 2 for heating the packages 8 to the required temperature above the dew point of the sterilizing gas. Thus, a correct temperature of the packages 8 may be ensured before they enter the sterilization zone 3.

Please replace the paragraph beginning at page 14, line 34, with the following amended paragraph:

Other means of controlling the heating in the heating zone 2 may also be used. The ambient temperature sensor ~~27~~ 37 may be used for determining the temperature outside the device 1. With knowledge of the properties of the materials in the package 8, the required temperature and flow of hot air introduced through the nozzles 13 may be calculated. This may also be combined with the package heating temperature sensor 32 described above for better control and for providing a safety feature.